

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1 - 27 (canceled)

Please add the following new claims:

28. (new) A pattern inspection method comprising the steps of:

attaining a digital image of an object substrate through microscopic observation thereof;

detecting defects of a pattern formed on said object substrate by comparing said digital image with a reference image stored in a memory while masking a pre-registered region or a pattern matching with a pre-registered pattern; and

outputting an image of a defect among the defects detected together with positional distribution data thereof on said object substrate on a display screen.

29. (new) A pattern inspection method as claimed in claim 28,

wherein the pre-registered region or pre-registered pattern is a region or pattern which has been set up using the digital image attained through microscopic observation of the object substrate.

30. (new) A pattern inspection method as claimed in claim 28,

wherein data regarding the masked region is also output.

31. (new) A pattern inspection method comprising the steps of:

- attaining a digital image of an object substrate through microscopic observation thereof;
- detecting defects of a pattern formed on said object substrate by comparing said digital image with a reference image stored in a memory; and
- displaying data on the defects detected on a display screen;

wherein, at the step of displaying, a positional distribution of the defects on said object substrate is displayed on the display screen together with an enlarged image of a defect among the defects detected, the positional distribution being displayed by excluding defects having a feature that matches with a pre-registered feature or distinguishing from defects which do not have a feature that matches with the pre-registered feature.

32. (new) A pattern inspection method as claimed in claim 31,

- wherein the pre-registered feature is a feature which has been set up using the digital image attained through microscopic observation of the object substrate.

33. (new) A pattern inspection method as claimed in claim 31,

- wherein an image of the detected defect is also displayed on the display screen.

34. (new) A pattern inspection method comprising the steps of:

- obtaining a digital image of an object substrate through microscopic observation thereof;

detecting defects of a pattern formed on said object substrate by comparing said digital image with a reference image stored in a memory; and

outputting data of the defects detected including a position on said object substrate and an enlarged image of a defect among the detected defects;

wherein, at the step of outputting, data regarding defects located in a pre-registered region, or data having a pattern that matches with a pre-registered configuration or pre-registered feature quantity is output so as to be distinguishable from data regarding an other detected defect.

35. (new) A pattern inspection method as claimed in claim 34,

wherein at least one of the pre-registered region, pre-registered configuration and pre-registered feature quantity data is a factor which has been set up using the digital image obtained through microscopic observation of the object substrate.

36. (new) A pattern inspection method as claimed in claim 34,

wherein positional data of the other detected defect is displayed on a display screen together with an image of the other detected defects.

37. (new) A pattern inspection method as claimed in claim 34,

wherein feature quantity data of each defect contains at least one kind of data including defect position data, projection length data, area data, and shape data.

38. (new) A pattern inspection method comprising the steps of:

attaining a digital image of an object substrate through microscopic observation thereof;

detecting candidate defects by processing the attained digital image;

extracting defects from the detected candidate defects by excluding candidate defects located in a predefined region on the object substrate or having a pattern that matches with a pre-registered pattern;

displaying an image of a defect among the extracted defects on a display screen together with positional distribution data on the object substrate and feature quantity data thereof;

classifying the defect which image is displayed on said display screen; and

outputting class data of the classified defect together with feature quantity data thereof.

39. (new) A pattern inspection method as claimed in claim 38,

wherein the class data of each of the classified defects is displayed on the display screen together with an image thereof.

40. (new) A pattern inspection method as claimed in claim 38,

wherein a digital image of each of the detected candidate defects is stored, and a judgment for extracting defects from the detected candidate defects is carried out by using the stored digital image of each of the detected candidate defects.

41. (new) A pattern inspection method as claimed in claim 38,

wherein the feature quantity data of each of the extracted defects is displayed on a CAD terminal.

42. (new) A pattern inspection method as claimed in claim 38,

wherein the feature quantity data of each of the extracted defects is displayed or printed together with CAD data thereof.